DEPARTMENT OF FOOD AND AGRICULTURE
PROPOSED CHANGES IN THE REGULATIONS
Title 3, California Code of Regulations
Section 3591.19, Subsections (a), (b) and (c),
Diaprepes Abbreviatus Eradication Area
INITIAL STATEMENT OF REASONS/
POLICY STATEMENT OVERVIEW

Description of Public Problem, Administration Requirement, or Other Condition or Circumstance the Regulation is Intended to Address

This regulation is intended to address the obligation of the Department of Food and Agriculture to protect the agricultural industry from the movement and spread of injurious plant pests within California.

Specific Purpose and Factual Basis

The specific purpose of Section 3591.19 is to provide authority to the State to eradicate infestations of *Diaprepes abbreviatus* from within the declared eradication areas by the established means and methods.

The factual basis for the determination by the Department that the adoption and subsequent amendment of this regulation is necessary is as follows:

An adult *Diaprepes abbreviatus* (West Indian sugarcane root borer or Diaprepes root weevil), was first detected on September 14, 2005, at a residence located in Newport Beach. On September 17, 2005, through visual inspection, another 37 adult Diaprepes root weevils were detected in outlying areas surrounding this residence. The number of adult Diaprepes root weevils detected was indicative of an incipient infestation existing in the Newport Beach area of Orange County. As a result, the Department adopted Section 3591.19, subsections (a), (b) and (c) as an emergency regulation that was effective on September 28, 2005.

Two Diaprepes root weevils (DRW) were subsequently detected October 11, 2005, from a residence located in Long Beach. On October 12, 2005, through visual inspection, another 13

adult Diaprepes root weevils were detected in outlying areas surrounding this residence. The number of adult Diaprepes root weevils detected is indicative of an incipient infestation existing in the Long Beach area of Los Angeles County. As a result, the Department amended Section 3591.19(a), as an emergency regulation that was effective on October 20, 2005.

An emergency eradication response is necessary now to ensure the Diaprepes root weevil does not continue to multiply and spread to other uninfested areas of the State. Adult Diaprepes root weevils will continue emergence and although a strong flyer, generally only fly up to 300 meters to find suitable host material. The real threat of long distance spread is through the human assisted movement of infested plants or soil.

Diaprepes root weevil is a major destructive pest of citrus and many other commercial crops grown in Florida including ornamental plants and root crops. Diaprepes root weevil is a native of the Caribbean Islands where at least 19 additional *Diaprepes* species, not currently detected in the U.S., are known to occur. Diaprepes root weevil was first detected in Florida in 1964 near the town of Apopka in Orange County. The weevil has now spread to parts of most agricultural areas outside of the original Apopka site. It is thought to have been introduced into Florida on ornamental plants imported from Puerto Rico.

While a widespread pest in Florida, the Florida Department of Agriculture and Consumer Services (FDACS) still considers it a quarantine pest of concern and requires all Florida nurseries to be free of the Diaprepes root weevil in order to ship intrastate or interstate. Infested nurseries are required to be under a compliance agreement that enables the nursery stock to move from the nursery once all the conditions in the agreement are met. These conditions may include removal of plants from growing media, shipping plants bare-root, or the application of approved chemical treatment.

Diaprepes root weevils have been recently detected in the Texas Rio Grande Valley. As a result, the Texas Department of Agriculture also adopted an interior quarantine against the weevil and is also conducting an eradication program.

In Florida, adult weevils may emerge from the soil throughout the year. However, there are two peak emergence periods of adult activity in the spring (May-June) and fall (August-September). Mating and egg-laying occur throughout this period. Eggs are generally laid in clusters of from 25 to 250 between mature leaf surfaces held together by an adhesive produced by the adult female. These eggs can also be laid on a single leaf, by folding parts of the leaf to cover the egg mass. A single female may lay as many as 5,000 eggs during her life of three to four months.

The eggs hatch in 7-10 days after they are laid. The larvae drop to the ground, burrow into the soil, and begin to feed on fibrous roots of host plants, moving to larger roots as they mature. The length of time spent in the larval and pupal stages varies from several months to more than a year. After a period of feeding, the larvae pupate in the soil, emerging later as adults. The total life cycle of any single weevil may last from six to 15 months resulting in multiple overlapping generations.

There is no comprehensive estimate of the total economic losses caused by the weevil to the environment and the agricultural industry in Florida. The current estimate for damage caused by the Diaprepes root weevil in Florida is approximately $70 million per year. For individual citrus growers, Diaprepes root weevil can result in a total loss. According to FDACS, over 30,000 acres of citrus in 23 counties are currently known to be infested. For ornamentals, root crops, and tropical fruit, more than 1,000 acres in two counties are known to be infested. Grower returns have been negatively affected by both reduced yields and increased production costs. Without adequate control measures, this pest can render a citrus grove operation non-profitable.

Adult Diaprepes root weevils feed on young, tender, citrus foliage and occasionally on fruit. The primary economic damage is caused by larvae feeding on roots and the crown area. A few large larvae can girdle and render a mature, healthy citrus tree non-productive. This behavior apparently makes Diaprepes root weevils unique among the citrus root weevil species found in the U.S. Additionally, combination of other root-debilitating factors such as Phytophthora root rot, nematodes and/or moisture stress can hasten decline of an infested tree.

Adult and larval Diaprepes root weevils also attack ornamental trees and agronomic root crops. Some crops may show only adult feeding damage and others are fed on only by larvae. The presence of adult Diaprepes root weevils is indicated by irregular semicircular feeding areas on the leaf edges of ornamental crops, similar to citrus. Adult weevil injury can also be observed on palm flowers as well as roots. It is suspected that the spread of this pest to California's date production areas would also have a negative economic impact on that industry. Adults are generally found on plants at the time of leaf flushing but can also be found continuously on ornamental trees with permanent tender foliage.

Phytophthora spp. root rot organisms commonly infect the margin of larval feeding sites in the root bark. This may cause girdling of large structural roots and accelerated tree decline on *Phytophthora* susceptible and moderately resistant rootstocks.

Many ornamental trees support advanced larval injury before external symptoms (leaf yellowing, wilting, and defoliation) are observed. Other hosts, such as oaks, appear to be susceptible to root-debilitating factors such as Phytophthora root rot following larval feeding. In California, Phytophthora root rot already contributes significantly to the mortality of urban and rangeland oaks.

Crops with a succulent root system, fleshy roots, or tubers (Cassava, malanga, potatoes) can tolerate several larvae before any external symptoms appear. Damage to root crops in Florida is manifested by shallow to deep larval feeding on fleshy roots or tubers. This may eliminate the damaged crops from being sold on the fresh market.

The Diaprepes root weevil has the capability of causing significant irreparable harm to California's agricultural industry and environment. While the Department's compliance with the Administrative Procedure Act and the California Environmental Quality Act (CEQA) are separate actions, they can be interrelated. Although adoption of specific regulatory authority can be the beginning of a project and therefore covered by CEQA, this is a ministerial action for an emergency and an action also for the protection of natural resources and the environment by a regulatory agency and is therefore exempt from the requirements of the CEQA statutes, under PRC Section 21080, and under Sections 15268, 15307 and 15308 of the CEQA Guidelines.

The Department has also determined that to ensure it conducted the most efficient and effective eradication project with the greatest chances of success, eradication activities will need to begin as soon as possible.

The emergency adoption of Section 3591.19 established Orange County as the eradication area for DRW. The entire county was proposed as an eradication area since future detection surveys may result in finds of additional small DRW infestations outside the current affected area within the county. To enable rapid treatment of newly discovered small infestations without frequent amendment of the regulation, the entire county was established as an eradication area.

The emergency amendment of Section 3591.19 also subsequently established Los Angeles County as part of the eradication area. Again, the entire county was proposed as an eradication area since future detection surveys may result in finds of additional small DRW infestations outside the current affected area within Los Angeles County. To enable rapid treatment of newly discovered small infestations without frequent amendment of the regulation, the entire county was established as an eradication area.

The effect of the adoption and subsequent amendment of this regulation was to establish the State's specific regulatory authority to perform control and eradication activities against DRW in Los Angeles and Orange counties. Any eradication or control actions undertaken by the Department will be in cooperation and coordination with any affected federal, city, county, and other state agencies as deemed necessary by the Department to ensure no long-term significant public health or environmental impacts. To prevent the spread of the DRW to non-infested areas to protect California's agricultural industry and environment, it was necessary to begin elements of the eradication activities against the DRW immediately. Therefore, it was necessary to both adopt and amend this regulation as emergency actions.

Estimated Cost of Savings to Public Agencies or Affected Private Individuals or Entities

The Department of Food and Agriculture has determined that Section 3591.19 does not impose a mandate on local agencies or school districts and no reimbursement is required under Section 17561 of the Government Code.

The Department also has determined that no savings or increased costs to any state agency, no reimbursable costs or savings under Part 7 (commencing with Section 17500) of Division 4 of the Government Code to local agencies or school districts, no nondiscretionary costs or savings to local agencies or school districts, and no costs or savings in federal funding to the State will result from the adoption of Section 3591.19 and subsections (a), (b) and (c); and, the amendment of 3591.19(a).

The cost impact of the changes in the regulations on private persons and businesses are expected to be insignificant.

The Department has determined that the proposed actions will not have a significant adverse economic impact on housing costs or California business, including the ability of California businesses to compete with businesses in other states. The Department's determination that the action will not have a significant statewide adverse economic impact on business was based on the following:

The emergency adoption of Section 3591.19 and subsections (a), (b) and (c); and, amendment of Section 3591.19(a) provides authority for the Department to conduct eradication activities against DRW within Los Angeles and Orange counties and there are no known private sector cost impacts.

Assessment

The Department has made an assessment that the repeal of the regulation would not 1) create or eliminate jobs within California; 2) create new business or eliminate existing businesses with California; or 3) affect the expansion of businesses currently doing business with California.

Alternatives Considered

The Department of Food and Agriculture must determine that no alternative considered would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.

Information Relied Upon

The Department relied upon the following studies, reports, and documents in the proposed adoption and subsequent amendment of Section 3591.19:

"Notice of Exemption (Form D)," dated September 22, 2005, completed by Jim Rains, California Department of Food and Agriculture.

Email dated September 21, 2005, and its attachment entitled, "Pest Profile," from Kevin Hoffman to Stephen Brown.

"Host Plants of Diaprepes Root Weevil and Their Implications to the Regulatory Process," S.E. Simpson, H.N. Nigg, and J.L. Knapp, Division of Plant Industry, Florida Department of Agriculture and Consumer Services (18 pages).

"Biology of *Diaprepes abbreviatus* in the Laboratory and Field," Philip A. Stansly, University of Florida (six pages).

"History and Importance of Diaprepes to Florida," David G. Hall, United States Sugar Corporation (six pages).

"Citrus Root Weevil - *Diaprepes abbreviatus,*" Texas Department of Agriculture (one page).

"Diaprepes Root Weevil," E.E. Grafton-Cardwell, K.E. Godfrey, J. E. Pena, C. W. McCoy, and R.L. Luck, Publication 8131, University of California (eight pages).

"Pest and Damage Record #1419766," dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

"Pest and Damage Record #1419765," dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

"Pest and Damage Record #1419764," dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

"Pest and Damage Record #1419763," dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

"Pest and Damage Record #1419761," dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

"Pest and Damage Record #1419760," dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1419759,” dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1419758,” dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1419755,” dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1419754,” dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1419753,” dated October 12, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1419752,” dated October 11, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

Pest and Damage Record #1416840,” dated September 17, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1314439,” dated September 17, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1314438,” dated September 17, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1416837,” dated September 17, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1314434,” dated September 17, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1416833,” dated September 17, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1416832,” dated September 17, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1416831,” dated September 17, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.

“Pest and Damage Record #1416828,” dated September 14, 2005, California Department of Food and Agriculture, Plant Health and Pest Prevention Services.